

INTELLIGENT TRANSPORTATION SYSTEMS PUBLICATIONS CATALOG

SEPTEMBER 1996



FEDERAL TRANSIT ADMINISTRATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL RAILROAD ADMINISTRATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

This document is disseminated by Department of Transportation in the interest of information exchange. The United States Government assumes no liability for its contents or use thereof.

The United States Government does not endorse products or manufacturers. Trade or manufacturers' names appear herein solely because they are considered essential to the objective of this document.

United States Department of Transportation
Intelligent Transportation Systems Joint Program Office
400 7th Street, S.W.
Washington, D.C. 20590
(202) 366-6363

C:\DATA\KENG\PUBLICAT\CATALOG\ITSCATAL.SAM
September 11, 1996

Accelerating Intelligent Transportation Systems Deployment: A Report from the United States Department of Transportation

This paper by Christine Johnson, Director of the Intelligent Transportation Systems Joint Program Office, describes the federal, state and local government officials and transportation professionals' roles in deploying and integrating Intelligent Transportation Systems.

Report # FHWA-JPO-96-0016.

November 1995.

Advanced Public Transportation Systems: A Bibliography with Abstracts. 1985-1991

This report by the Federal Transit Administration lists bibliographical information about Advanced Public Transportation System research projects that are partially or wholly funded or not funded by the Federal Transit Administration. Report #DOT-T-92- 18, April 1992.

Advanced Public Transportation Systems Benefits

This document by the Federal Transit Administration lists the benefits that transit authorities in the United States and Canada have experienced in deploying various Advanced Public Transportation Systems technologies. March' 1996.

Advanced Public Transportation Systems: Evaluation Guidelines

This report by the Volpe National Transportation Systems Center, describes how evaluation guidelines for the Federal Transit Administration's Advanced Public Transportation Systems Operational Tests are implemented and reported. Report #DOT-T-94-10. **January 1994.**

Advanced Public Transportation Systems: Project Summaries

This document by the Federal Transit Administration summarizes the current status of Advanced Public Transportation Systems Research Projects that are partially or wholly funded by the Federal Transit Administration and Federal Highway Administration. April 1996

Advanced Public Transportation Systems: State of the Art. Update '96

This report by the Volpe National Transportation Systems Center and EG&G Dynatrend summarizes the state-of-the-art in Traveler Information Systems, Transit Management Systems, Electronic Payment Systems, and Transportation Demand Management Techniques. Report #DOT-VNTSC-FTA-95-13 January 1996.

Advanced Public Transportation Systems (APTS) Technical Assistance Briefs
APTS Brief #1: What are Advanced Public Transportation Systems?

This brief by the Federal Transit Administration provides a detailed overview of the Advanced Public Transportation Systems Program. Spring 1993.

APTS Brief #2: Advanced Public Transportation Systems Evaluation Guidelines

This brief by the Federal Transit Administration provides a detailed overview of the evaluation guidelines used to assess Advanced Public Transportation Systems Operational Tests. Summer 1993.

APTS Brief #3: Minnesota Guidestar**Travlink**

This brief by the Federal Transit Administration/ provides a detailed overview of the Minnesota Guidestar Traviink. This Operational Test in Minneapolis/St. Paul uses a Global Positioning System-based Automatic Vehicle Location system and Advanced Traveler Information system in the newly constructed I-394 corridor to influence trip-making decisions and travel behaviors. January 1994.

APTS Brief #4: California Advanced Public Transportation Systems

This brief by the Federal Transit Administration provides a detailed overview of the following Advanced Public Transportation Systems Operational Tests in California: Los Angeles Smart Traveler, Los Angeles Smart Card, Yosemite Area Regional Transportation Information System Santa Clara County Smart Paratransit, and Sacramento Rideshare Operational Tests. February 1994.

APT'S Brief #5: Bellevue Smart Traveler

This brief by the Federal Transit Administration provides a detailed overview of the Bellevue Smart Traveler. This Operational Test in Washington uses advanced computer and communications technologies to reduce the number of single occupancy vehicles by providing automated ridesharing services to Downtown Bellevue commuters through computers, telephones; and electronic pagers and wrist watches; -March 1994.

APTS Brief #6: Houston Smart Commuter

This brief by the Federal Transit Administration provides a detailed overview of the Houston Smart Commuter This Operational Test uses advanced computer and communications technologies to reduce the number of single occupancy vehicles by disseminating real-time traffic and transit information to commuters on the I-45 North corridor through telephones, cable television, and personal computer devices and by providing automated ridesharing services to commuters on the I- 10 West corridor through a telephone system. June 1994.

APTS Brief #7: Denver Smart Vehicle System

This brief by the Federal Transit Administration provides a detailed overview of the Denver Smart Vehicle System. This Operational Test uses a Global Positioning System-based Automatic Vehicle Location system to manage bus fleets more efficiently and to increase schedule adherence. August 1994.

APTS Brief #8: Winston-Salem Mobility Manager

This brief by the Federal Transit Administration provides a detailed overview of the Winston-Salem Mobility Manager. This Operational Test in North Carolina provides transportation services to transit users through a mobility management system that automates the dispatching, reporting, and billing of transit services. September 1994.

APTS Brief #9: Los Angeles Smart Traveler Advanced Traveler Aid Systems for Public

Kiosks

This brief by the Federal Transit Administration provides a detailed overview of the Los Angeles Smart Traveler Kiosks. This Operational Test uses automated, multimedia kiosks in office complexes, shopping malls, and transportation centers to disseminate real-time traffic and transit information, transit schedules, and ridesharing services. December 1994.

APTS Brief #10: Smart Fare Payment Systems for Public Transit

This brief by the Federal Transit Administration provides a detailed overview of Electronic Payment Systems for Public Transit. This brief focuses on early automation efforts, read-only passes and fare cards, automated fare card sales, smart fare cards, contact cards, radio frequency coupled proximity cards, and a future perspective of the technology are discussed. January 1996.

APTS Brief #11: An Intelligent Transportation System for Atlanta for the 1996 Olympics

This brief by the Federal Transit Administration provides a detailed overview of the Atlanta Traveler Information Showcase, ITS MARTA 96 (Intelligent Transportation Systems Metropolitan Atlanta Rapid Transit Authority 1996), and the Georgia Department of Transportation Advanced Transportation Management System. February 1996.

Transportation

This report by the Federal Transit Administration describes the concept, structure, technology and implementation of the Intelligent Transit Mobility System which is an innovative system to improve public transportation information dissemination. Report #DOT-T-95-07, September

An Integrated Intelligent Transportation Infrastructure for Your Metropolitan Area

This brochure by the Federal Highway Administration and Federal Transit Administration provides a general overview of the nine Intelligent Transportation Infrastructure components: Traffic Signal Control Systems, Freeway Management Systems, Incident Management Systems, Traveler Information Systems, Transit Management Systems, Electronic Payment Systems, Electronic Toll Collection Systems, Railroad Grade Crossing Systems, and Emergency Management Services. Report #FHWA-JPO-96-005. December 1995

Assessment of Intelligent Transportation Systems Commercial Vehicle Operations User Services: Qualitative Benefits and Cost Analysis

This executive summary by the American Trucking Associations Foundation presents the findings of a two-year effort led by the Foundation to explore the impact of Intelligent Transportation Systems technology on the regulatory compliance costs for motor carriers. June 1996.

Assessment of Computer Dispatch

Technology in the Paratransit Industry

This report by the University of North Carolina presents the results of an investigation in computer dispatching capabilities of taxicab companies and computer scheduling capabilities of paratransit operations

Report #DOT-T-92-23, March 1992.

Assessment of Intelligent Transportation Systems Benefits: Early Results

This report by Mitre provides an early assessment of the ongoing uses and benefits of Intelligent Transportation Systems.

Report #FHWA-JPO-96-00 1, August 1995

Bellevue Smart Traveler and Cellular Telecommunications

This report by the Bellevue Transportation Management Association discusses the findings of the Bellevue Smart Traveler Operational Test in Washington. This operational test uses advanced computer and communications technologies to reduce the number of single occupancy vehicles by providing automated ridesharing services through computers, telephones; and electronic pagers and wrist watches to Downtown Bellevue commuters. Report #DOT-T-93-36, May 1993.

Building the Intelligent Transportation Infrastructure: Putting the National Architecture into Action

This handbook by Mitretek for transportation and project managers provides focused information about the National Intelligent Transportation Systems Architecture. This handbook discusses major architecture systems and information flows at a fairly high level. Report #FHWA-JPO-96-00 12, January 1996.

California Smart Traveler System

This report by Aegis Transportation Information Systems describes how audiotex and videotex terminals can be used to develop paratransit and Carpools and how they can be integrated with conventional transit, paratransit, and ridesharing to reduce traffic congestion, gasoline consumption, air pollution and mobility problems at a low cost to the taxpayer Report #DOT-T-92- 16. February 1992

Commercial Vehicle Information Systems Network (CVISN) - Statement of Direction

This executive summary by the John Hopkins University Applied Physics Laboratory provides an overview of the Commercial Vehicle Information Systems Network initiative. Report #FHWA-JPO-96-0006, November 1995

Cost Estimates for Selected California Smart Traveler Operational Tests

This supplemental report to *California Smart Traveler System* by the Aegis Transportation Information Systems estimates the cost of conducting the California Smart Traveler Operational Tests in San Ramon/Pleasanton. University of California at Los Angeles, and Northern San Diego. A cost comparison of implementing Smart Traveler concepts versus the expansion of conventional transit services is included. Report #DOT-T-93-31. March 1993

German "Smart-Bus" Systems: Potential for Application in Portland, Oregon, Volume 1, Technical Report

This report by the Aegis Transportation Information Systems describes how new telephone-based information services can be used to enhance the cost-effectiveness of Germany's Flexible Operations Command and Control System, a bus route deviation system. Report #DOT-T-93-25, January 1993

German "Smart-Bus" Systems: Potential for Application in Portland, Oregon, Volume 2, Appendices

This supplemental report to *German "Smart-Bus" Systems: Potential for Application in Portland, Oregon, Volume 1. Technical Report* by the Aegis Transportation Information Systems estimates the cost of conducting the German "Smart Bus" System Operational Test in Portland, Oregon. Report #DOT-T-93-26. January 1993.

Implementation of the National Intelligent Transportation Systems Program: A Report to Congress

This report by the Federal Highway Administration summarizes the Intelligent Transportation Systems Program status since the June 1994 Report, including Accomplishments, challenges and associated implications for future directions, and assumes in understanding of information presented in that Report. Report #FHWA-JPO-96-004. January 1996.

International Standards Organization Technical Committee 204 Working Group 8 Transit/Emergency

This flyer by the Federal Transit Administration provides a detailed overview of the International Standards Organization's organizational structure and the history and current status of Working Group 8 which is responsible for developing international transit and emergency Intelligent Transportation Systems standards. May 1996.

Intelligent Transportation Infrastructure Deployment Database: Interim Report

This report by the Federal Highway Administration summarizes the deployment of the Intelligent Transportation Infrastructure in the largest 75 metropolitan areas in a matrix format. Report #FHWA-JPO-96-0018, June 1996.

Intelligent Transportation Infrastructure, (ITI) Flyers:

ITI Flyer - Electronic Payment Systems

This flyer by the Intelligent Transportation Systems Joint Program Office provides a brief summary of Operation Timesaver and a general overview of Electronic Payment Systems.

Report #FHWA-JPO-96-002

September 1996

ITI Flyer - Electronic Toll Collection Systems

This flyer by the Intelligent Transportation Systems Joint Program Office provides a brief summary of Operation Timesaver and a general overview of Electronic Toll Collection Systems. Report #FHWA-JPO-96-0020, September 1996.

ITI Flyer - Emergency Response Services

This flyer by the Intelligent Transportation Systems Joint Program Office provides a brief summary of Operation Timesaver and a general overview of Emergency Response Services. Report #FHWA-JPO-96-0027, September 1996.

ITI Flyer - Freeway Management Systems

This flyer by the Intelligent Transportation Systems Joint Program Office provides a brief summary of Operation Timesaver and a general overview of Freeway Management Systems. Report #FHWA-JPO-96-0025, September 1996.

ITI Flyer - Incident Management Systems

This flyer by the Intelligent Transportation Systems Joint Program Office provides a brief summary of Operation Timesaver and a general overview of Incident Management Systems. Report #FHWA-JPO-96-0026, September 1996.

Single Underlined document titles are available on the Federal Transit Administration's Internet home page (<http://www.fta.dot.gov/office/research/>)

Double Underlined document titles are available on the Joint Program Office's Internet home page (<http://www.its.dot.gov/reading/pubs.html>)

ITI Flyer - Railroad Grade Crossing Systems

This flyer by the Intelligent Transportation Systems Joint Program Office provides a brief summary of Operation Timesaver and a general overview of Railroad Grade Crossing Systems. Report #FHWA-JPO-96-0024, September 1996

ITI Flyer - Traffic Signal Control Systems

This flyer by the Intelligent Transportation Systems Joint Program Office provides a brief summary of Operation Timesaver and a general overview of Traffic Signal Systems. Report #FHWA-JPO-96-0023, September 1996.

ITI Flyer - Transit Management Systems

This flyer by the Intelligent Transportation Systems Joint Program Office provides a brief summary of Operation Timesaver and a general overview of Transit Management Systems. Report #FHWA-JPO-96-0022, September 1996.

ITI Flyer - Traveler Information Systems

This flyer by the Intelligent Transportation Systems Joint Program Office provides a brief summary of Operation TimeSaver and a general overview of Traveler Information Systems. Report #FHWA-JPO-96-0021, September 1996.

Intelligent Transportation Systems At A Glance #1

This newsletter by the Intelligent Transportation Systems Joint Program Office. Volume 1, Number 1, summarizes Operations Timesaver and a research project that examines vehicle crashes and potential Intelligent Transportation Systems countermeasures. Report #FHWA-JPO-96-0013, April 1996.

Intelligent Transportation Systems Projects

This report by the Intelligent Transportation System Joint Program Office is a comprehensive listing of the Intelligent Transportation Systems research projects in the United States that are wholly or partially funded by the Federal Highway Administration, Federal Transit Administration, Federal Railroad Administration, and the National Highway Traffic Safety Administration. Report #FHWA-JPO-96-0003. January 1996

Intelligent Transportation Systems User Services

This excerpt From Volume 1 of the National Intelligent Transportation Systems Program Plan by the Intelligent Transportation Systems Joint Program Office summarizes the 29 user service bundles for Intelligent Transportation Systems. Report #FHWA-JPO-950004. January 1995.

Intelligent Transportation Systems - What Are the Benefits of the Transit Components of Intelligent Transportation Systems?

This flyer by the Federal Transit Administration lists the specific benefits that transit authorities have experienced in deploying Intelligent Transportation Systems. April 1996.

Mobility Management and Market Oriented Local Transportation

This report by Jeffrey A. Parker & Associates and the International Taxicab and Livery Association describes the feasibility and cost-effectiveness of integrating local transportation services offered by multiple providers. Report #DOT-T-92-7, March 1991

**National Intelligent Transportation Systems
Architecture: Transit Issues and
Recommendations**

This white paper by the Sandia National Laboratories examines a number of issues relating to the transit aspects of the National Intelligent Transportation Systems Architecture October 1995

**Operation Timesaver: Building the
Intelligent Transportation Infrastructure
(Rollout)**

This brochure by the U.S Department of Transportation provides a general overview of Operation Timesaver-Secretary Pena's National Intelligent Transportation Systems Deployment Goal.
Report #FHWA-JPO-96-0007. January 1996

**Operation TimeSaver: Intelligent
Transportation Infrastructure Benefits
Expected and Experienced**

This report by Mitre documents the benefits of implementing an Intelligent Transportation Infrastructure. Report #FHWA-JPO-96-0008, January 1996.

**Operation Timesaver: Intelligent
Transportation Infrastructure Transit
Components**

This flyer by the Federal Transit Administration summarizes Operation Timesaver and lists specific benefits and costs of the Intelligent Transportation Infrastructure transit components, May 1996.

**Operation Timesaver: Secretary Pena's
Remarks**

This flyer by the U.S. Department of Transportation is a transcription of the Secretary's speech at the 1996 Transportation Research Board Annual Meeting in Washington D.C.
Report #FHWA-JPO-96-00 17, May 1996.

**Review and Assessment of En-Route Transit
Information Systems**

This report by EG&G Dynatrend reviews the current efforts to design, develop, and implement en-route transit information systems, and includes a discussion of the state-of-the-art in en-route transit information systems with respect to the User Service Development Plan identified in the *National Program for ITS*: Volume 2. Report #DOT-T-96-03, July 1995

**Review of and Preliminary Guidelines for
Integrating Transit into Transportation
Management Centers**

This report by EG&G Dynatrend investigates the integration of traffic and transit operations at several Transportation Management Centers in the United States Report #DOT-T-94-25, July 1994

**Shared Resources Sharing Right-of-Way
for Telecommunications - Guidance on
Legal and Institutional Issues**

This report by Apogee Research identifies 20 institutional and non-technical issues that figure prominently in shared resource arrangements. This report also describes each issue and outlines the options available, summarized advantages and disadvantages of some of the most **salient**, and describes the stages in development of a shared resource project. Report #FHWA-JPO-96-00 15, April 1996.

**Shared Resources: Sharing Right-of-Way
for Telecommunications - Identification,
Review, and Analysis of Legal and
Institutional Issues**

This report by Apogee Research identifies and explores 20 issues associated with implementation of shared resource projects and describes various options for dealing with these issues. This report also presents five case studies to illustrate the types of arrangements that have been implemented to date.
Report #FHWA-JPO-96-0014, April 1996.

Telecommunications in Transportation:

Key Issues and Best Practices-

This report by the Intelligent Transportation Systems Joint Program Office provides an overview of the approaches that have been successfully employed by a number of state and local governments to deal with the need to develop and deploy a sophisticated telecommunications networks to gather and distribute data for Intelligent Transportation Systems Report #FHWA-JPO-96-0034 September 1996.

The National Architecture for Intelligent Transportation Systems: A Framework for Integrated Transportation into the 21st Century

This executive summary by Mitretek for transportation officials and executives provides a general introduction into the National Architecture. Report #FHWA-JPO-96-0012. January 1996.

Transit Geographical Information Systems

This brochure by the Federal Transit Administration provides an detailed overview of the Transit Geographical Information Systems Program. part of the National Spatial Data Infrastructure. Report #FHWA-JPO-96-0009 August 1995.

Traveling With Success

This booklet by Public Technology Incorporated documents the "success" stories that cities, counties-and metropolitan areas across the United States have experienced in deploying some of the Intelligent Transportation Infrastructure components. January 1995.

Single Underlined document titles are available on the Federal Transit Administration's Internet home page (<http://www.fta.dot.gov/office/research/>)

Double Underlined document titles are available on the Joint Program Office's Internet home page (<http://www.its.dot.gov/reading/pubs.html>)